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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,109	04/21/2000	DAVID FAIRLIE	10648-0001-0	1786
22850	7590	12/18/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			MOHAMED, ABDEL A	
		ART UNIT	PAPER NUMBER	
		1653		

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/446,109	FAIRLIE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Abdel A. Mohamed	1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 September 2003.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 10-14,17,19,20 and 33-73 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 10-14,17,19,20 and 33-61 is/are allowed.
- 6) Claim(s) 62-73 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

**CONTINUED EXAMINATION UNDER 37 CFR 1.114 AFTER FINAL REJECTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/20/03 has been entered.

**ACKNOWLEDGMENT OF AMENDMENT, REMARKS AND STATUS OF THE CLAIMS**

2. The amendment and remarks filed 9/20/03 are acknowledged, entered and considered. In view of Applicant's request claims 1-9, 15, 16, 18 and 21-23 have been canceled, claims 10-14, 17, 19 and 20 have been amended and claims 33-73 (See Rule 126 below) have been added. Thus, claims 10-14, 17, 19, 20 and 33-73 are now pending in the application. The rejection under 35 U.S.C. 112, first paragraph for claims 10-14, 17, 19, 20 and newly submitted claims 24-52 (renumbered claims 33-61 under Rule 126) is withdrawn in view of Applicant's amendment and remarks filed 8/4/03 and 9/20/03. However, the rejection under 35 U.S.C. 112, first paragraph for newly submitted claims 53-64 (renumbered 62-73 under Rule 126) is maintained for the reasons of record.

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered (in the instant case, claims 24-32 which have been canceled in preliminary amendment filed 4/21/00 have been renumbered). When new claims are presented, they must be renumbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). Thus, in accordance of Rule 126, misnumbered claims 24-64 have been renumbered 33-73.

**CLAIMS REJECTION-35 U.S.C. 112 <sup>1st</sup> PARAGRAPH.**

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Newly submitted claims 62-73 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for pharmaceutical formulations of cyclic peptides of formula II or IV, or the specific formula of claim 19 and to a method of antagonizing or agonizing a C5a receptor, does not reasonably provide enablement for a method of treating an inflammatory condition or a method of treating arthritis by administering the above compounds thereof as claimed in claims 62-73. The specification does not enable any person skilled in the art to which it pertains, or with

which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

In this regard, the application disclosure and claims have been compared *per the* factors indicated in the decision *In re Wands*, 8 USPQ2d 1400 (Fed. Cir., 1988) as to undue experimentation. The factors include:

- 1) the nature of the invention;
- 2) the breadth of the claims;
- 3) the predictability or unpredictability of the art;
- 4) the amount of direction or guidance presented;
- 5) the presence or absence of working examples;
- 6) the quantity of experimentation necessary;
- 7) the state of the prior art; and
- 8) the relative skill of those skilled in the art;

Each factor is addressed below on the basis of comparison of the disclosure, the claims and state of the prior art in the assessment of undue experimentation.

- 1) the nature of the invention;

The instantly claimed invention as amended is directed to compounds/formulations of Formula II, IV and specific formula of claim 19 and to a method of antagonizing or agonizing a C5a receptor, method of treating an inflammatory condition or method of treating arthritis by administering therapeutically effective amount of said formulation thereof.

2) the breadth of the claims;

The scope of the claims include pharmaceutical formulations comprising the compounds of Formula II, IV and specific formula of claim 19 administered to a method of treating an inflammatory condition which is not defined and to a method of treating arthritis (any kind of arthritis) as claimed in claims 62-73. The specification does not disclose one reasonable method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claims. The specification lacks guidance/direction as to how to employ a pharmaceutical preparation useful for treatment of an inflammatory condition and arthritis by administering to a patient an effective amount of a compound according to claim 10, 17 and 19 in the manner claimed in claims 62-73.

Further, the first paragraph of 35 U.S.C. 112 requires, inter alia, that a patent specification provide sufficient guidance to enable a person skilled in the art to make and use the claimed invention without undue experimentation. In re Vaeck, 947 F.2d 488, 495, 20 USPQ2d 1438, 1444 (Fed. Cir. 1991). While patent Applicants are not directed to disclose every species that falls within a generic claim, id. At 496, 20 USPQ2d at 1445, it is well settled that “the scope of the claims must bear a reasonable correlation to the scope of the enablement provided by the specification”. In re Fisher, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970).

3) the predictability or unpredictability of the art;

As acknowledged by Applicant on British Journal of Pharmacology, Vol. 128, pp. 1461-1466, 1999 (Applicants own work because out of 9 authors, 4 of them are the

inventors of the instant application), the reference shows the pharmaceutical characterization of antagonists of the C5a receptor. On page 1461, right column, the reference states that until recently, no potent or selective small molecule antagonists have been available to evaluate therapeutic effects of blocking C5aRs. Although, C5aRs antagonists are now available for testing and further development, to date, no studies have reported on either the pharmacological nature of the antagonism or on their activities on cells other than PMNs. Further, on the abstract, the reference summarizes the result by stating that these antagonists are insurmountable in nature against C5a for C5aR on at least two human cell types, and the differences in relative receptor binding affinities and antagonistic potencies against C5a are consistent with differences in receptors within these cell types. The nature of these differences is yet to be elucidated, and concludes on page 1465 by stating that the results of the present study indicate the feasibility of such a notion. Thus, clearly showing the unpredictable nature of compounds in the method of treatment claimed.

4) the amount of direction or guidance presented;

The specification teaches pharmaceutical formulations comprising cyclic peptides of formula II or IV, or the linear derivatives of compounds 1-7 or compounds 8-10 which display reduced biological activity and a method for *in vitro* comparison of receptor-binding and antagonist activity with hexapeptide compound 7 and *in vivo* activity of cyclic C5a antagonist in rats by using the above pharmaceutical formulations thereof as shown in Examples 1-8, Figures 2-10 and Tables 3-4. Example 1 and Table 4 teach synthesis of cyclic peptide, and Figures 2-4 and 7, Table 3 and Example 2 demonstrate

NMR structure determination of cyclic antagonists. Figures 5-6 and Examples 3-6 show *in vitro* receptor-binding assay. Figures 8-10 and Examples 7-8 describe the *in vivo* assays of anti-inflammatory activity on rats in which paw edema is determined by administering the carageenan compound into the air pouch and exudates is collected and the anti-inflammatory effects is assayed by differential counting of cells in the air-pouch exudates.

6) the quantity of experimentation necessary;

The claimed invention is directed to pharmaceutical formulations of cyclic peptides of formula II or IV, or the specific formula of claim 19 and to a method of antagonizing or agonizing a C5a receptor, a method of treating an inflammatory condition or a method of treating arthritis by administering the above compounds thereof as claimed in claims 62-73. The phrases "treating inflammatory condition" and "treating arthritis" are not justified by the limited exemplary disclosure of suppressing the onset of either carageenan-induced paw edema or adjuvant-induced polyarthritis as disclosed in Figures 8-10 and Examples 7 and 8 because the above phrases encompass treating any kind of inflammation (unspecified inflammation caused by unspecified agent) as well as any kind of arthritis (undefined arthritis) using pharmaceutical formulations comprising cyclic peptides of formulae II or IV and the linear derivatives described which are improperly incorporated by references on page 9, lines 22-37 in the instant invention. Further, there is no working example or data or evidence, which shows that the claimed compounds are useful as pharmaceutical formulations in the method of treatments as claimed in claims 62-73. Although, there is preparation Examples for

pharmaceutical formulations as well as *in vitro* and *in vivo* assays and certain mode of administration. Nevertheless, there is no evidence in the instant specification to use or administer the pharmaceutical formulations in therapeutically effective amount as claimed, except for the mere recitation of protocols on page 19 in the instant specification contemplating the suitable dosage of the compound to be administered generally in mammals for the intended treatment of all kinds of inflammatory conditions and arthritis. Hence, the only support for the claimed method of treatment thereof is Applicant's supposition of the invention as recited in the protocols. Thus, in view of the above, it would include those that have not been shown or taught to be useful or enabled by the disclosed method of making and using the invention. Moreover, undue experimentation is necessary to determine if and under what conditions, the claimed invention as broadly claimed is enabled, since treatment of **all kinds** of inflammatory conditions and arthritis in a mammal including human are contemplated and are encompassed as well as wide range of situations. The results desired appear to be highly dependent on all variables, the relationship of which is not clearly disclosed. Hence, one of ordinary skill in the art would not be able reproduce all the aspects the claimed invention methods for treatment of an inflammatory condition mediated by a C5a receptor and treating arthritis by administering compounds of claims 10, 17 and 19, as encompassed in the claims would be effective and under what conditions.

7) the state of the prior art;

Thus, in view of the above and in view of the fact that the state of the prior art as discussed above, at the time the invention was made there was no pharmaceutical

characterization of antagonists of the C5a receptor; and as to date (i.e. 1999-date of publication of the reference), no studies have reported on either the pharmacological nature of the antagonism or on their activities on cells other than PMNs, let alone administering an effective amount of pharmaceutical formulation of the claimed compound to treat all kinds of inflammatory conditions and arthritis in the manner claimed in claims 62-73.

8) the relative skill of those skilled in the art;

Therefore, applying the Wands factors to the facts of this case, one of skill in the art would find that undue amount of experimentation would be required to practice the full scope of the extremely broad claims fro the reasons given above. Thus, in view of the quantity of experimentation necessary, the lack of adequate guidance or working examples or data, and the breadth of the claims; the claims are not commensurate in scope with the enabling disclosure. Hence, in consideration of each of factors 1-8, it is apparent that there is undue experimentation because of variability in prediction of outcome that is not addressed by the present application disclosure, examples, teachings, and guidance presented. Therefore, absent factual data to the contrary, the amount and level of experimentation needed is undue. Accordingly, filing of evidence commensurate with the scope of the claims or amendment of the claims to what is supported by the enabling disclosure is suggested.

**ARGUMENTS ARE NOT PERSUASIVE**

**CLAIMS REJECTION-35 U.S.C. 112<sup>1st</sup> PARAGRAPH.**

4. The rejection of newly submitted claims 62-73 under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for pharmaceutical formulations of cyclic peptides of formula II or IV, or the specific formula of claim 19 and to a method of antagonizing or agonizing a C5a receptor, does not reasonably provide enablement for a method of treating an inflammatory condition or a method of treating arthritis by administering the above compounds thereof as claimed in claims 62-73. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicant's arguments and the several publications attached herewith to confirm the predictability of the animal models and further to demonstrate the efficacy of the claimed compounds filed 8/4/03 have been fully considered but they are not persuasive. Applicant has argued that claims 62-73 are drawn to method of treating an inflammatory condition or a method of treating arthritis using the compounds of claims 10, 17 or 19. These claims are enabled because the Applicants have provided *in vivo* data using well-accepted models for assessing anti-inflammatory and anti-arthritis effects. As stated on page 46, lines 22-25 "many anti-inflammatory drugs currently used in humans were initially evaluated in such assays, and also showed activity in these models of inflammation". Applicant concludes by stating that the specification provides a full disclosure of the invention with respect of how to make and use the invention, there is additional evidence consistent with description in the specification which enables the full scope of the present invention, and as such, the claims are, in fact, fully enabled by the

specification as originally filed, and that the requirements of the first paragraph of 35 U.S.C. § 112 have been met is not persuasive.

Contrary to Applicant's arguments, the claims are not directed for assessing anti-inflammatory and anti-arthritis effects as argued. Rather, the claims are directed to a method of treating an inflammatory condition or a method of treating arthritis by administering the compounds of claims 10, 17 or 19. Further, there is no evidence in the instant specification to use or administer the pharmaceutical formulation in therapeutically effective composition as claimed. The publications provided have been considered and appears to support the disclosure in enabling for pharmaceutical formulations of cyclic peptides of formula II or IV, or the linear derivatives of compounds 1-7 or compounds 8-10 which display reduced biological activity and a method for *in vitro* comparison of receptor-binding and antagonist activity with hexapeptide compound 7 and *in vivo* activity of cyclic C5a antagonist in rats by using the above pharmaceutical formulations thereof. The Examiner agrees that the attached publications confirm that the instant specification in Examples 1-8, Figures 2-10 and Tables 3-4. Example 1 and Table 4 teach synthesis of cyclic peptide, and Figures 2-4 and 7, Table 3 and Example 2 demonstrate NMR structure determination of cyclic antagonists. Figures 5-6 and Examples 3-6 show *in vitro* receptor-binding assay. Figures 8-10 and Examples 7-8 describe the *in vivo* assays of anti-inflammatory activity on rats in which paw edema is determined by administering the carrageenan compound into the air pouch and exudates is collected and the anti-inflammatory effects is assayed by differential counting of cells in the air-pouch exudates. However, the scope of the instantly claimed

invention are very broad and speculative in that there is/are no working example(s) or data or evidence which shows that the claimed pharmaceutical formulation comprising the compounds of Formula II, IV and specific formula of claim 19 administered to a method of treating an inflammatory condition which is not defined and to a method of treating arthritis (any kind of arthritis) as claimed in claims 62-73. The specification does not disclose one reasonable method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claims. The specification lacks guidance/direction as to how to employ a pharmaceutical preparation useful for treatment of an inflammatory condition and arthritis by administering to a patient an effective amount of a compound according to claim 10, 17 and 19 in the manner claimed in claims 62-73.

Thus, in view of the above and in view of the fact that the state of the prior art as discussed above, at the time the invention was made there was no pharmaceutical characterization of antagonists of the C5a receptor; and as to date (i.e. 1999-date of publication of the reference), no studies have reported on either the pharmacological nature of the antagonism or on their activities on cells other than PMNs, let alone administering an effective amount of pharmaceutical formulation of the claimed compound to treat all kinds of inflammatory conditions and arthritis in the manner claimed in claims 62-73.

Furthermore, The claimed invention is directed to pharmaceutical formulations of cyclic peptides of formula II or IV, or the specific formula of claim 19 and to a method of antagonizing or agonizing a C5a receptor, a method of treating an inflammatory

condition or a method of treating arthritis by administering the above compounds thereof as claimed in claims 62-73. The phrases "treating inflammatory condition" and "treating arthritis" are not justified by the limited exemplary disclosure of suppressing the onset of either carageenan-induced paw edema or adjuvant-induced polyarthritis as disclosed in Figures 8-10 and Examples 7 and 8 because the above phrases encompass treating any kind of inflammation (unspecified inflammation caused by unspecified agent) as well as any kind of arthritis (undefined arthritis) using pharmaceutical formulations comprising cyclic peptides of formulae II or IV and the linear derivatives described which are improperly incorporated by references on page 9, lines 22-37 in the instant invention. Further, there is no working example or data or evidence, which shows that the claimed compounds are useful as pharmaceutical formulations in the method of treatments as claimed in claims 62-73. Although, there is preparation Examples for pharmaceutical formulations as well as *in vitro* and *in vivo* assays and certain mode of administration. Nevertheless, there is no evidence in the instant specification to use or administer the pharmaceutical formulations in therapeutically effective amount as claimed, except for the mere recitation of protocols on page 19 in the instant specification contemplating the suitable dosage of the compound to be administered generally in mammals for the intended treatment of all kinds of inflammatory conditions and arthritis. Hence, the only support for the claimed method of treatment thereof is Applicant's supposition of the invention as recited in the protocols. Thus, in view of the above, it would include those that have not been shown or taught to be useful or enabled by the disclosed method of making and using the invention. Moreover, undue

experimentation is necessary to determine if and under what conditions, the claimed invention as broadly claimed is enabled, since treatment of **all kinds** of inflammatory conditions and arthritis in a mammal including human are contemplated and are encompassed as well as wide range of situations. The results desired appear to be highly dependent on all variables, the relationship of which is not clearly disclosed. Hence, one of ordinary skill in the art would not be able reproduce all the aspects the claimed invention methods for treatment of an inflammatory condition mediated by a C5a receptor and treating arthritis by administering compounds of claims 10, 17 and 19, as encompassed in the claims would be effective and under what conditions.

Therefore, in view of the above and in view of the fact that the state of the prior art as discussed above, at the time the invention was made there was no pharmaceutical characterization of antagonists of the C5a receptor; and as to date (i.e. 1999-date of publication of the reference), no studies have reported on either the pharmacological nature of the antagonism or on their activities on cells other than PMNs, let alone administering an effective amount of pharmaceutical formulation of the claimed compound to treat all kinds of inflammatory conditions and arthritis in the manner claimed in claims 62-73. Secondly, the Examiner has clearly shown in the previous Office Action of Paper No. 16 (mailed 5/6/02) and as discussed above that without guidance through working example(s), one of ordinary skill in the art would not predict from background discussion and/or information and protocols to employ or administer the pharmaceutical formulation in therapeutically effective composition in the manner claimed. Thus, the specification does not enable any person skilled in the art to

which it pertains, or which it is most nearly connected, to use the invention commensurate in scope with the claims. In the express absence of one or more examples, evidence and sufficient guidance, the skilled artisan would be faced with undue experimentation for practicing the invention. Thirdly, it is not understood from Applicant's response how the instant invention, which Applicant considers as novel and inventive, be exemplified without working example(s) or data or evidence. The law requires that a disclosure in an application shall inform those skilled in the art how to use Applicant's alleged discovery, not how to find out how to use it for themselves. See *In re Gardner et al.*, 166 USPQ 138 (CCPA 1970). Therefore, undue experimentation is necessary to determine if and under what conditions, the claimed invention as broadly claimed is enabled. Hence, it is viewed that the specification does not enable the invention as claimed in claims 62-73, as it does not teach how to use the invention to achieve the function of the claims for the reasons discussed above. Thus, applying the Wands factors to the facts of this case, one of skill in the art would find that undue amount of experimentation would be required to practice the full scope of the extremely broad claims fro the reasons given above. Hence, in view of the quantity of experimentation necessary, the lack of adequate guidance or working examples or data, and the breadth of the claims, the claims are not commensurate in scope with the enabling disclosure. Accordingly, filing of evidence commensurate with the scope of the claims or amendment of the claims to what is supported by the enabling disclosure is again suggested.

**ACTION IS FINAL, FIRST ACTION FOLLOWING REQUEST FOR CONTINUED EXAMINATION UNDER 37 CFR 1.114**

5. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, THIS ACTION IS MADE FINAL even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**CONCLUSION AND FUTURE CORRESPONDENCE**

6. Claims 10-14, 17, 19, 20 and 33-61 are allowed and claims 62-73 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdel A. Mohamed whose telephone number is (703) 308-3966. The examiner can normally be reached on Monday through Friday from 5:30 a.m. to 5:00 p.m. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low, can be reached on (703) 308-2923. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications and (703) 305-7401 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



CHRISTOPHER S. F. LOW  
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December 14, 2003